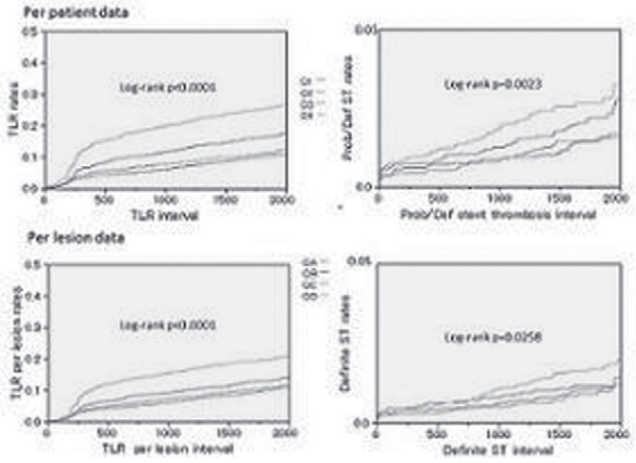

Conclusion: Higher TSL per patient and per lesion were associated with increased 5-year TLR and stent thrombosis rates.

TCT-218

New Application of a Long Existing Index Score

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Background: The Charlson Comorbidity Index (CCI) is a useful tool for assessing the importance of major comorbidities for clinical management and outcome of patients in different medical fields. We aimed to evaluate the impact of CCI on early and late clinical outcomes in a large population of patients treated with one type of drug eluting stent (DES) in daily PCI practice.
Methods: We enrolled 3067 consecutive patients in 125 centers worldwide. All patients were treated with Nobori DES. Follow-up was scheduled at 1 and 6 months and yearly up to five years. The information pertinent to the CCI score was obtained before the procedure. Data were captured electronically and their quality was extensively monitored. An independent clinical event committee adjudicates all adverse events. The primary endpoint was target lesion failure (TLF), a composite of cardiac death, target vessel related MI and target lesion revascularization (TLR).
Results: For the 3067 enrolled patients, CCI scores were: CCI0=787; CCI1=1382; CCI2=595 and CCI≥3=303. Patients with a CCI≥2 were significantly older, more often female, had a higher incidence of diabetes, renal failure, chronic lung disease, prior cerebrovascular disease or cancer and were more frequently admitted with ACS as compared to patients with a CCI<2. QCA analysis of target lesions revealed significantly smaller RVD pre- and post-procedure in CCI≥2 as compared to CCI<2. TLF rates at 2 years were 2.9%, 3.7%, 7.1% and 12.9% in CCI0, 1, 2 and ≥3 groups. Those differences were driven by cardiac death (0.6%, 0.7%, 3.0% and 5.3%; p<0.001) and TLR (1.5%, 2.6%, 3.5% and 7.3%: p<0.001). Target vessel related MI (1.1%, 1.4%, 1.5% and 3.3%) and stent trombosis rates (0.3%, 0.9%, 1.2% and 1.3%) were not significantly different.
Conclusion: The CCI was strongly correlated with the occurrence of major adverse events at two year follow-up. This was particularly obvious for cardiac death and TLR but less for target vessel related MI and stent thrombosis. CCI score may be of use to better account for confounding factors in PCI registries, as well as to help optimize treatment in selected high risk patients.

TCT-219

Prospective Evaluation Of the Xience V Everolimus-Eluting Stent In Saphenous Vein Graft Atherosclerosis: the Xience V-SVG Angiographic Study

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Background: There is limited information on the use of second generation drug-eluting stents in saphenous vein graft (SVG) lesions. In the present study we examined the angiographic and clinical outcomes after implantation of the Xience V everolimus-eluting stent (Abbott Vascular, Santa Clara, California) in SVG lesions.
Methods: The SOS-Xience study is a single-arm prospective study that enrolled 40 consecutive patients undergoing stenting of de novo SVG lesions. Patients were asked to return for clinical and angiographic follow-up at 12 months. The primary endpoint was binary in-segment restenosis (defined as >50% minimum lumen diameter stenosis at the target SVG segment).
Results: Mean patient age was 67±7 years and 95% were men. The indications for stenting included acute coronary syndrome (n=19, 48%) and stable angina (n=15, 38%). The mean SVG age was 11±7 years. An everolimus-eluting stent was successfully implanted in all cases. Mean stent diameter and length were 3.0±0.46 and 18±6 mm, respectively. An embolic protection device was used in all cases (53% Filterwire, 8% Spider, 40% Proxis). Follow-up angiography was performed in 27 patients (68%), of whom 4 patients (15%) had in-stent restenosis and required repeat revascularization. In-stent restenosis was focal in all 4 lesions (3 of 4 were ostial lesions).The median late loss was 0.52 mm (interquartile range 0.36, 0.92). The 12-month incidence of major adverse cardiac events was 44% (n=17), mortality was 18% (n=7), the incidence of acute myocardial infarction was 8% (n=3), and the incidence of repeat revascularization was 30% (10 patients: 4 required target lesion revascularization, 2 required revascularization of a different lesion in the target SVG and 4 required revascularization of another vessel).
Conclusion: Use of the Xience V everolimus-eluting stent in de novo SVG lesions is associated with low rates of angiographic restenosis and target lesion revascularization. Patients undergoing SVG stenting have high risk for adverse clinical events during the first year post stenting.

TCT-220

Efficacy and Saftey of 38 mm Long Stent Treatment for Diffuse Coronary Disease: A Multicenter Evaluation by Angiography and OCT Analysis at One Year After Implantation

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Background: Very long lesions treatment usually contemplates the use of DES but the implantation of multiple overlapping DES for diffuse disease increases the risk of restenosis and stent thrombosis.
Methods: We prospectively evaluated the performance of 38mm-long DES in terms of feasibility, efficacy and safety in elective patients undergoing stent implantation for de novo diffuse (>33 mm) coronary disease. Endpoint of the study was the occurrence of MACE (cardiac death, myocardial infarction, TLR and stent thrombosis at one year FU). Secondary endpoints were OCT struts coverage, and malapposed struts at follow-up.
Results: 68 pts with 79 lesions were enrolled, 83.8% male, mean age of 67.2 ±10 yrs. All 79 lesions were type C, 23.5% C3. Lesions were treated with Taxus Libertè®, 14 with Endeavor Resolute®, and 10 with Xience® stents all post-dilated at high atmosphere (>20 atm) with NC balloons. Mean stent size was 3.0±0.2, mean stent per lesion was 1.1, mean stent length was 42.18 mm. No adverse in-hospital events were observed. Mean follow-up of 8.2±3.7 months was done for all pts. No MACE but 2 not cardiac deaths (2.9%) occurred, no TLR detected. OCT was randomly performed in 5 patients of each group at 8 mo FU angiography. Mean neointimal thickness was 140±72 µm, 223±107 µm and 254.5±82.5 µm and percentage of neointimal hyperplasia was 15.7±9.4%, 20.7±11.9%, and 30.7±9.4% for the Resolute®, Taxus Libertè®, and Xience® groups respectively, with a significant difference between Resolute® and the other 2 groups (P= 0.0001 with Taxus®, P=0.024 with Xience®). Percentage of IIIb+IV stent struts were 15.7%, 9.89%, and 0.87% of total struts analysed. Frames with RUTTS > 30% were 23.1%, 16.2%, and 1.3% of total analyzed for Resolute®, Taxus Libertè®, and Xience® groups respectively with a significant difference between Xience® and the other 2 groups (P=0.0001 for both Resolute® and Taxus®)
Conclusion: Dedicated 38mm-long DES for treatment of complex diffuse disease can be achieved with high success rate and excellent mid term safety profile. OCT analysis revealed that second generation stents may perform significantly better than first generation in terms of safety parameters.

TCT-221

Long-term Safety and Effectiveness of Drug Eluting Stents Compared to Bare Metal Stents in Non ST Elevation Myocardial Infarction: Findings from the Guthrie Health Off-Label STent (GHOST) Registry

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Background: The long-term safety and effectiveness of drug eluting stents (DES) versus bare metal stents (BMS) in non ST-segment elevation myocardial infarction (NSTEMI) beyond 2 years after percutaneous coronary intervention (PCI) is unknown.
Methods: We studied 674 NSTEMI patients who underwent successful PCI with DES (n=323) or BMS (n=351). The primary study end-points were time to occurrence of death or non-fatal recurrent myocardial infarction, and stent thrombosis. Secondary end-points included time to occurrence of target vessel revascularization (TVR) and any major adverse cardiovascular event (MACE, defined as the composite of death,